This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

FILING DATE: December 30, 2003

TITLE:

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

___ OF 45

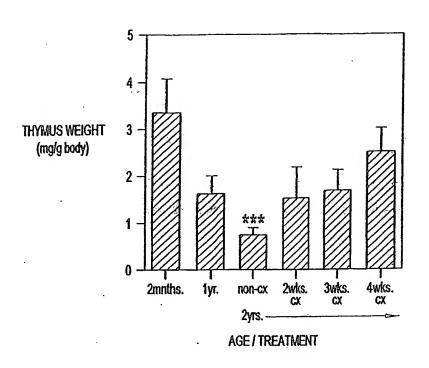


Figure 1A

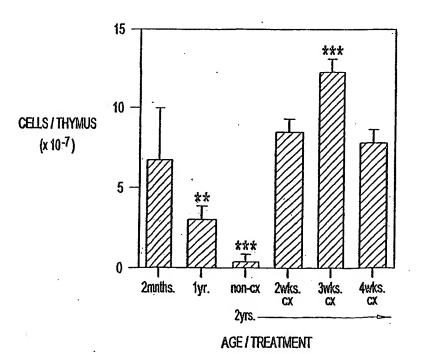


Figure 1B

APPLICANT: Boyd

APPLN. NO.: TBD FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination TITLE:

Development

DOCKET NO.: NOR-011CP2/286336.150 P OF 45

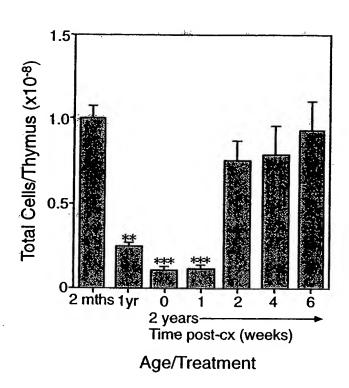


FIGURE 1 C

FILING DATE: December 30, 2003

TITLE: Stimulation of Thymus for Vaccination

Development

DQCKET NO.: NOR-011CP2/286336.150

 $\frac{3}{2}$ OF 45

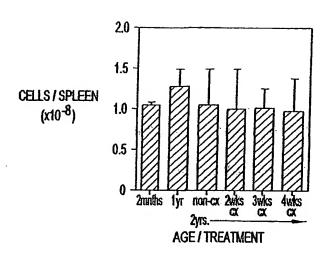


Figure 2A

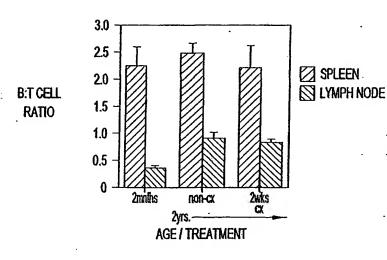
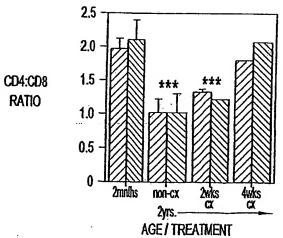


Figure 2 c



SPLEEN

LYMPH NODE

Figure 2

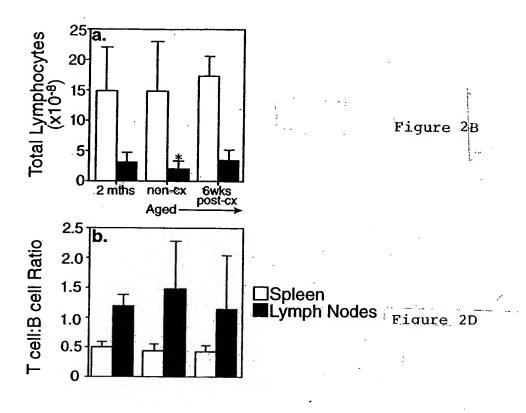
FILING DATE: December 30, 2003

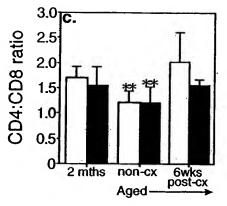
TITLE: Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

4 OF 45





Age/Treatment

Figure 2F

APPLICANT: APPLN. NO.: Boyd TBD

FILING DATE: December 30, 2003 TITLE:

Development

Stimulation of Thymus for Vaccination

DOCKET NO.: NOR-011CP2/286336.150

5 OF 45

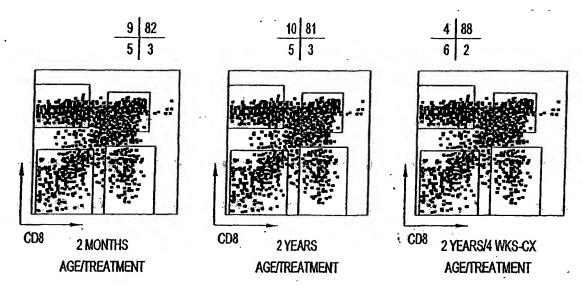
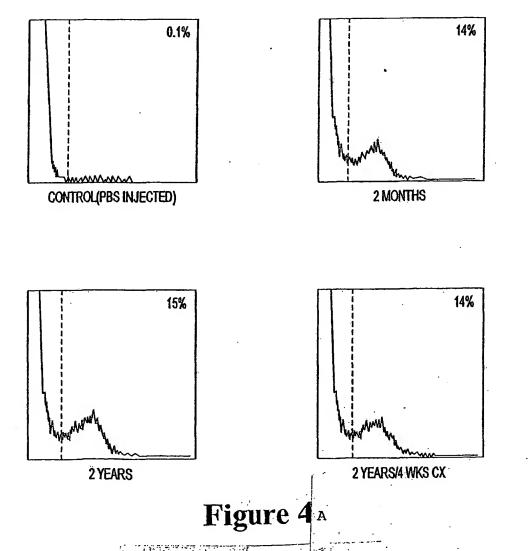


Figure 3



FILING DATE: December 30, 2003

TITLE:

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150 **b** OF 45



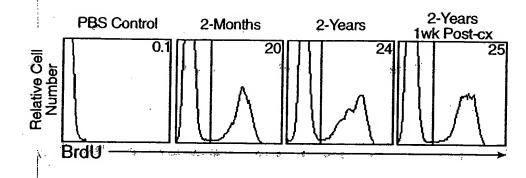
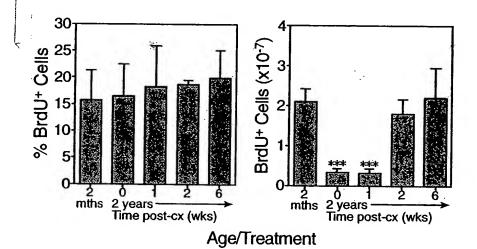
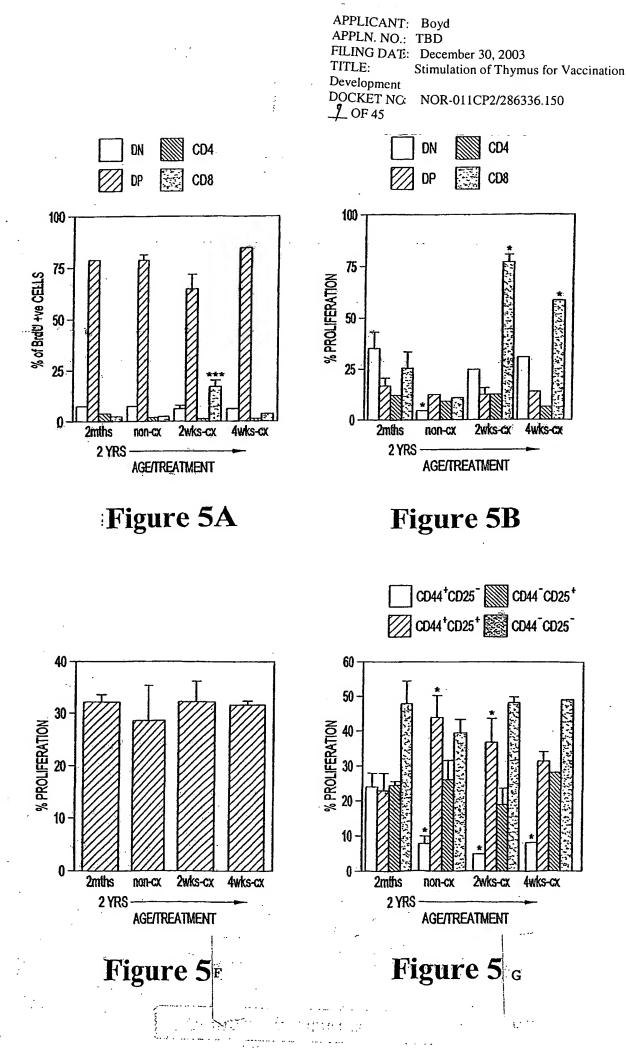


Figure 4C





Boyd APPLICANT: TBD APPLN. NO.:

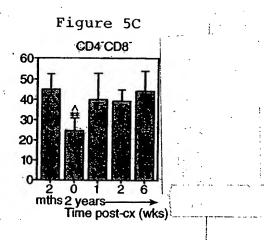
FILING DATE: December 30, 2003

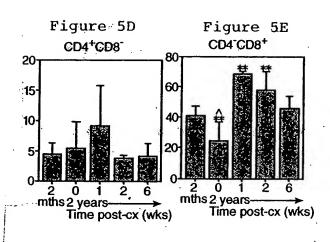
Stimulation of Thymus for Vaccination TITLE:

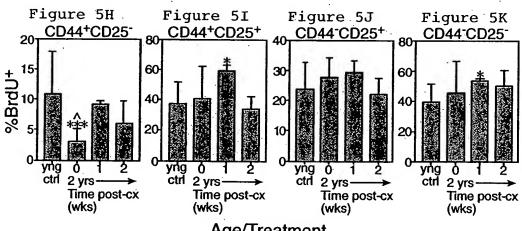
Development

DOCKET NO.: NOR-011CP2/286336.150

9 OF 45







Age/Treatment

DOCKET NO.: NOR-011CP2/286336.150 9 OF 45 b. a. 20 1.5 RTE Cell Number (x10-6) % Daily Export 1.5 2 mths 1yr 2 mths 1yr 2 yrs ———— Time post-cx (wks) 2 yrs ———— Time post-cx (wks) C. 10 ☐Total 圖Spleen RTE CD4:CD8 Ratio 7.5 LN 5.0 2.5 1ÿr 2 mths Age/Treatment

APPLICANT:

APPLN. NO.:

Development

TITLE:

Boyd

Stimulation of Thymus for Vaccination

TBD FILING DATE: December 30, 2003

FIGURE 6.

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination TITLE:

Development

DOCKET NO.: NOR-011CP2/286336.150

10 OF 45

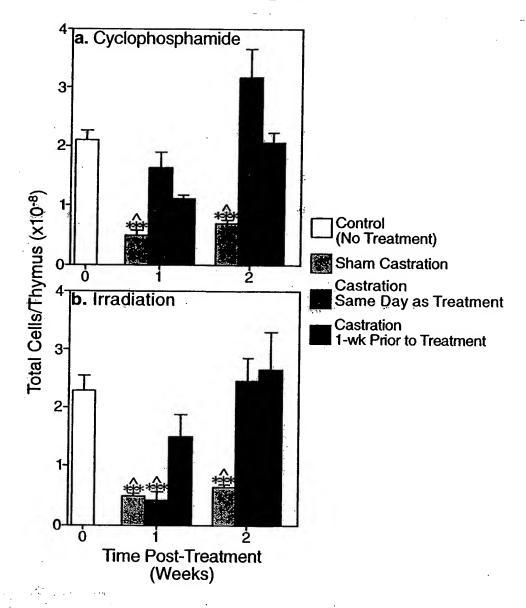


FIGURE 7.

FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150



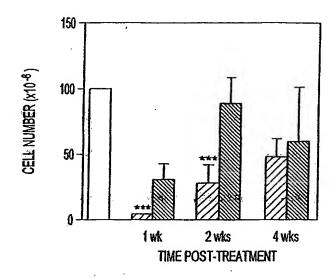
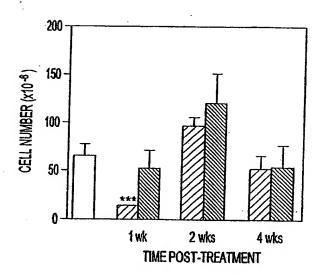


Figure 8A





CYCLOPHOSPHAMIDE ALONE

CYCLOPHOSPHAMIDE AND CASTRATION (SAME DAY)

Figure 8B

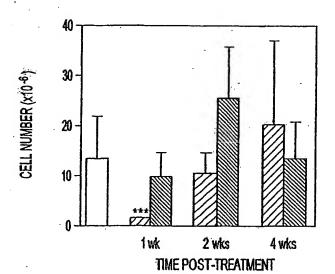


Figure 8c

 ${\bf APPLICANT:}$ Boyd TBD APPLN. NO.:

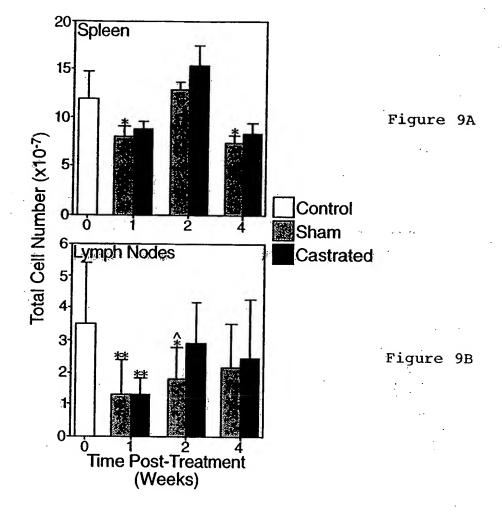
FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150 _____OF 45





APPLICANT: APPLN. NO.: Boyd TBD

FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination TITLE:

Development

DOCKET NO.: NOR-011CP2/286336.150

OF 45

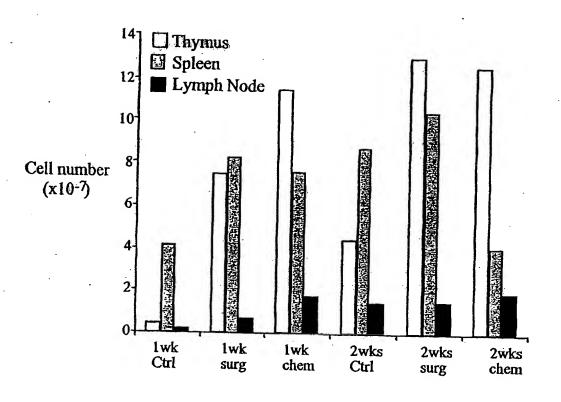


Figure 10

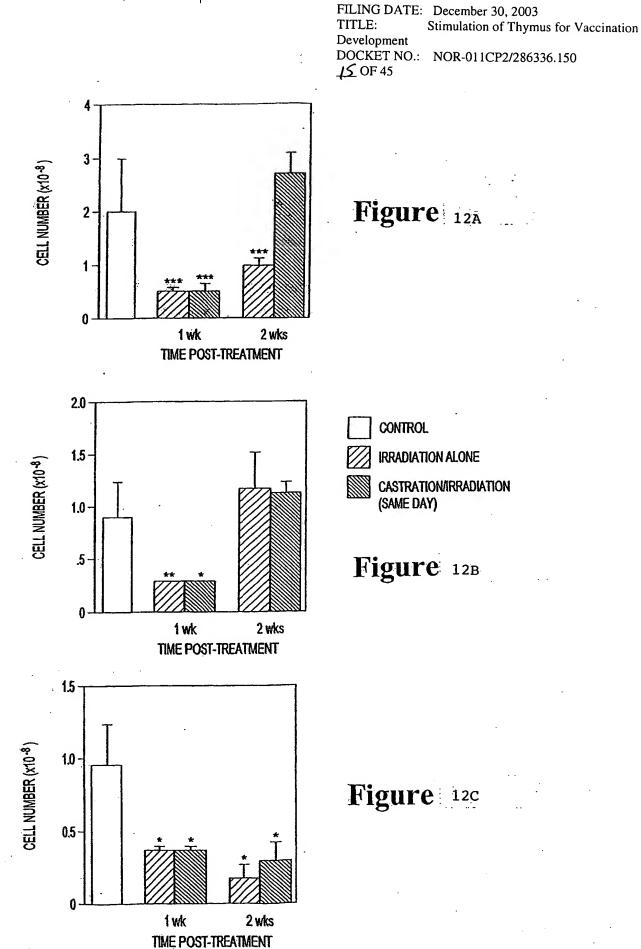
FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination Development
DOCKET NO.: NOR-011CP2/286336.150

11 OF 45 3. CELL NUMBER (x10-8.) Figure 11A 2 2 wks .1 wk TIME POST-TREATMENT CONTROL CELL NUMBER (x10-8) IRRADIATION ALONE 2-CASTRATION/IRRADIATION one week prior to treatment 1 Figure 118 2 wks 1 wk TIME POST-TREATMENT 1.5 CELL NUMBER (x10-7 1.0 Figure 11c 0.5 0 1wk 2 wks TIME POST-TREATMENT

APPLICANT:

APPLN. NO.:

Boyd TBD



APPLICANT:

APPLN. NO.:

Boyd

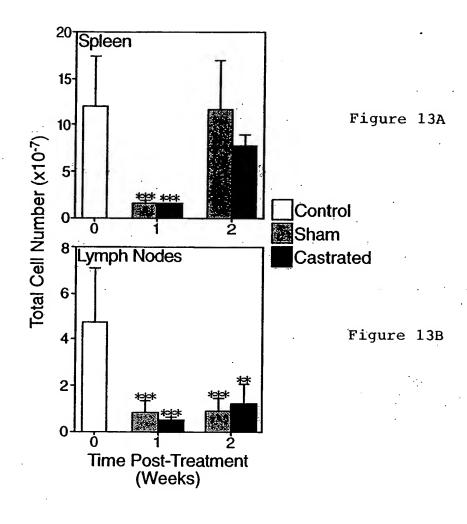
TBD

FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination

TITLE: Development

DOCKET NO.: NOR-011CP2/286336.150

16 OF 45



Boyd APPLICANT: TBD APPLN. NO.:

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccin TITLE:

Development

DOCKET NO.: NOR-011CP2/286336.150



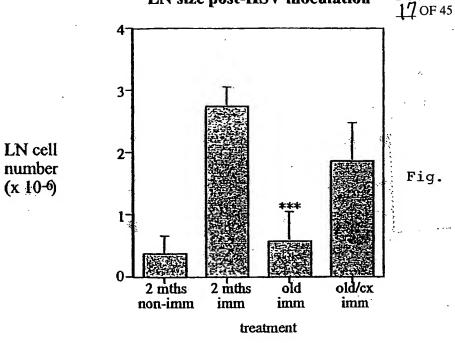


Fig. 14A

Activated cell numbers

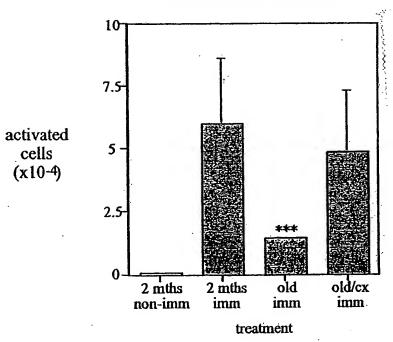
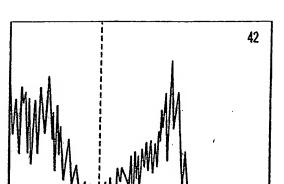


Fig. 14B

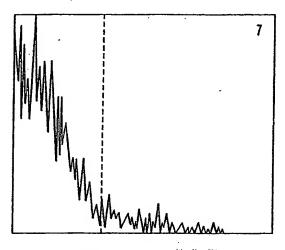
FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination

Development
DOCKET NO.: NOR-011CP2/286336.150
OF 45



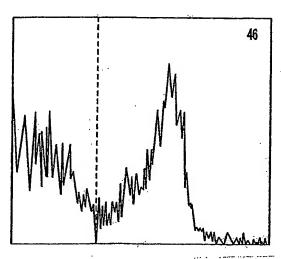
2 MONTHS

Figure 15A



18 MONTHS

Figure 15B



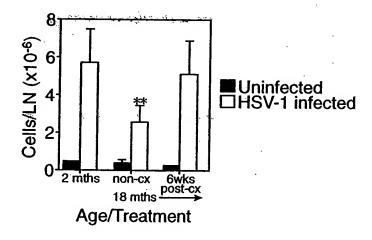
18 MONTHS CASTRATED

Boyd TBD APPLICANT: APPLN. NO.:

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

TITLE: Development

DOCKET NO.: NOR-011CP2/286336.150 _____OF 45



FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150 **20** OF 45

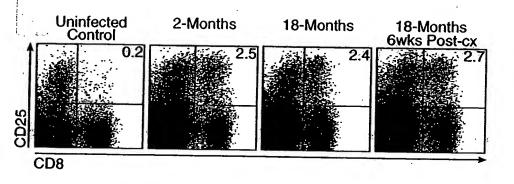


Figure 17A

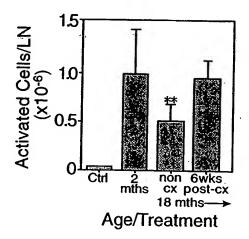


Figure 17B

FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination TITLE: Development

DOCKET NO.: NOR-011CP2/286336.150 21 OF 45

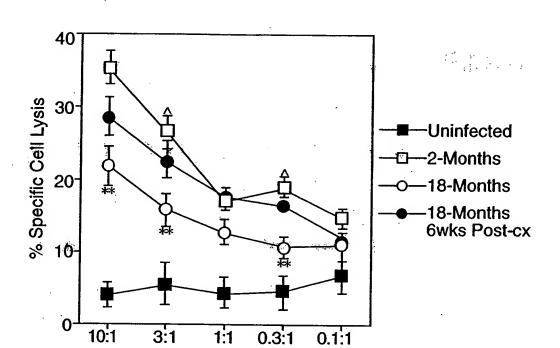


FIGURE 18

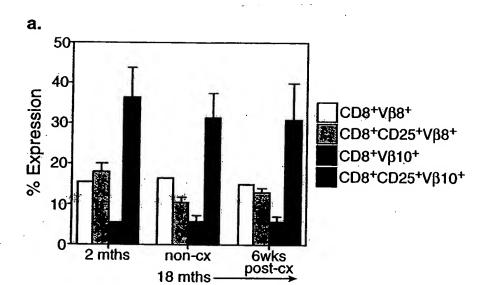
Effector to Target (E:T) Ratio

Boyd APPLICANT: TBD APPLN. NO.:

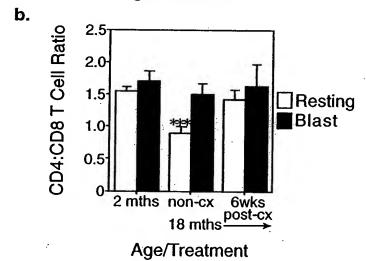
FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

TITLE: Development

DOCKET NO.: NOR-011CP2/286336.150 22 OF 45



Age/Treatment



FILING DATE: December 30, 2003

Development

DQCKET NO.: NOR-011CP2/286336.150

Stimulation of Thymus for Vaccination

12OF 45



RECONSTITUTION ALONE

RECONSTITUTION WITH CASTRATION

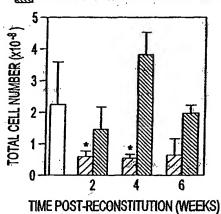


Figure 20A

CONTROL

TIME POST-RECONSTITUTION (WEEKS)

Figure 206

CONTROL

RECONSTITUTION ALONE

RECONSTITUTION WITH CASTRATION

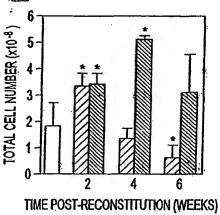
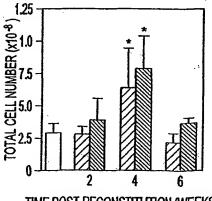


Figure 20B

CONTROL

RECONSTITUTION ALONE

RECONSTITUTION WITH CASTRATION



TIME POST-RECONSTITUTION (WEEKS)

Figure 20D

FILING DATE: December 30, 2003

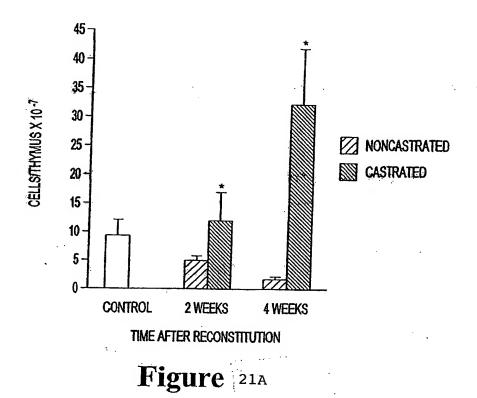
TITLE:

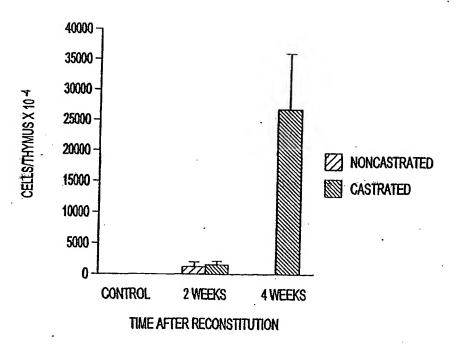
Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

24 OF 45





APPLICANT: Boyd TBD APPLN. NO.:

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

TITLE: Development

DOCKET NO.: NOR-011CP2/286336.150 **25** OF 45

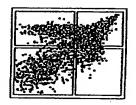
AGE MATCHED



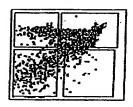
NON-CASTRATED

CASTRATED

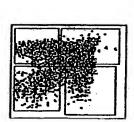
2 WEEKS POST RECONSTITUTION



엻



4 WEEKS POST RECONSTITUTION



CD8

Figure 22

FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

26 OF 45

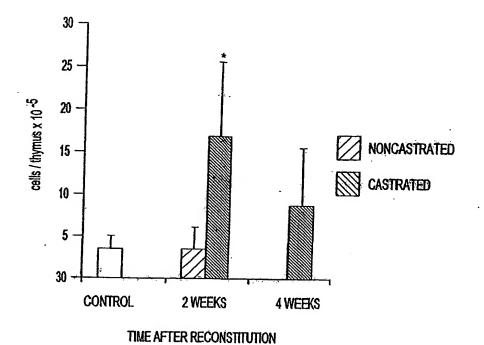
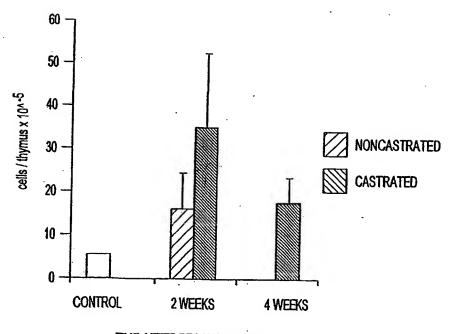


Figure 23A



TIME AFTER RECONSTITUTION

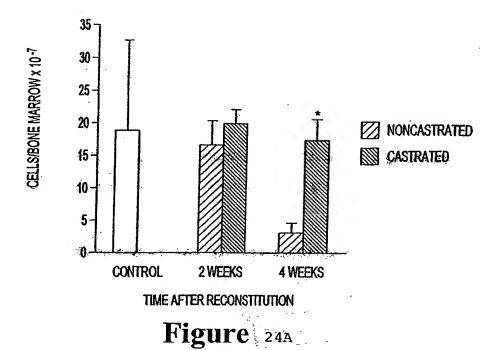
Figure 23B

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

TITLE: Development

1 OF 45

DOCKET NO.: NOR-011CP2/286336.150



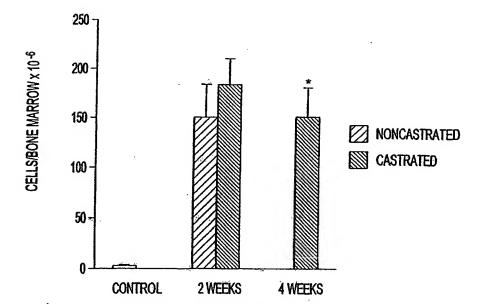


Figure 24B_

TIME AFTER RECONSTITUTION

FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

1 OF 45

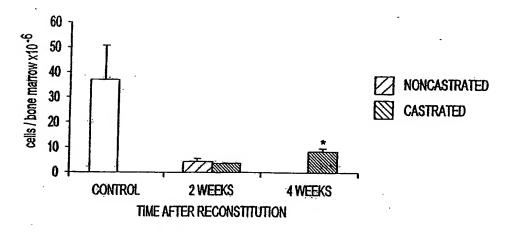


Figure 25A

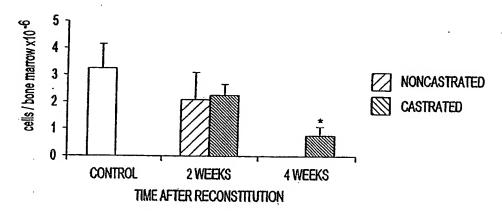
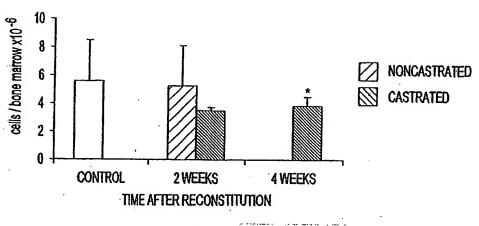


Figure 25B



Figure

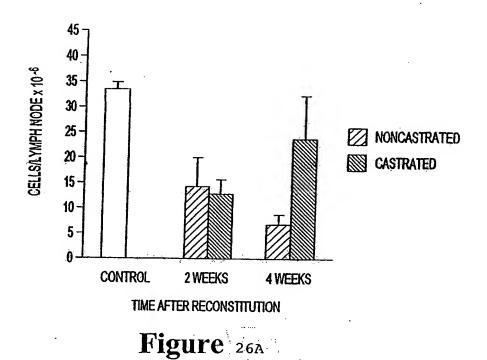
FILING DATE: December 30, 2003

TITLE:

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150
20 OF 45



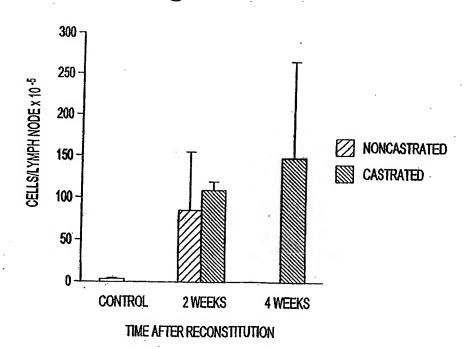
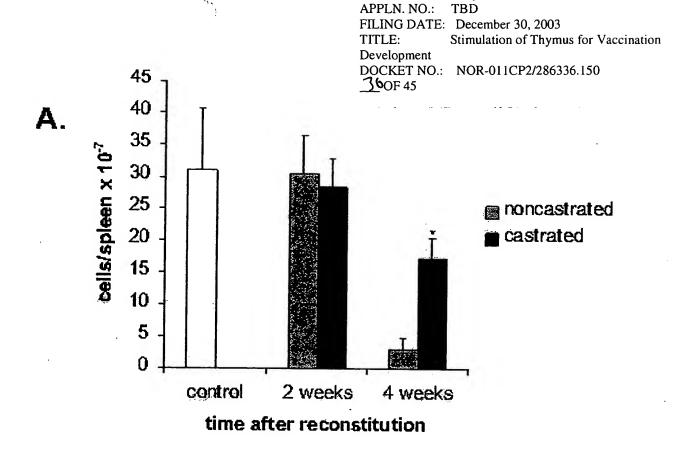


Figure 26B



APPLICANT:

Boyd

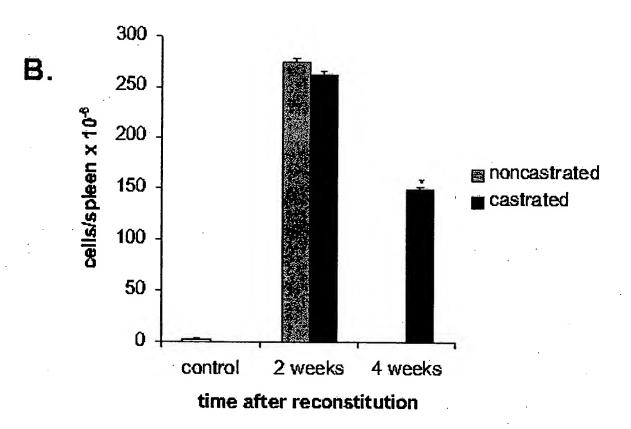


FIGURE 27.

APPLICANT: APPLN. NO.:

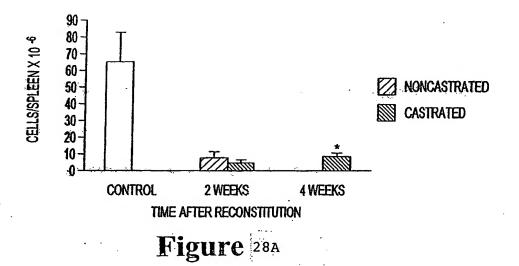
TBD FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

3∠ OF 45



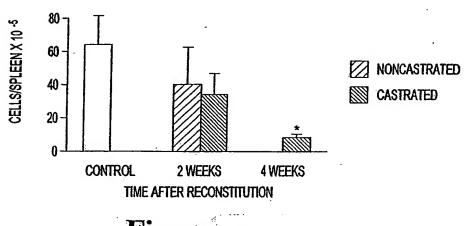
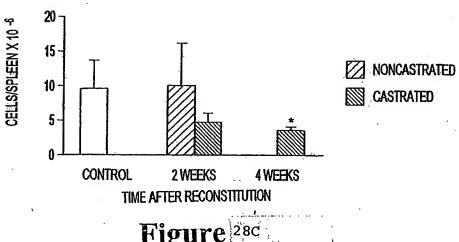


Figure 28B



Boyd APPLICANT: TBĎ APPLN. NO.:

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

TITLE:

Development DOCKET NO.: NOR-011CP2/286336.150

12 OF 45

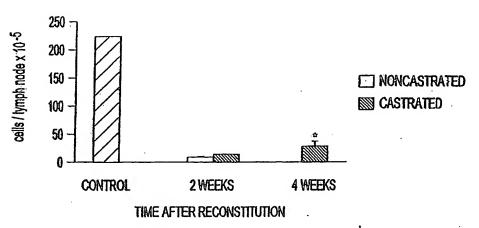


Figure 29A

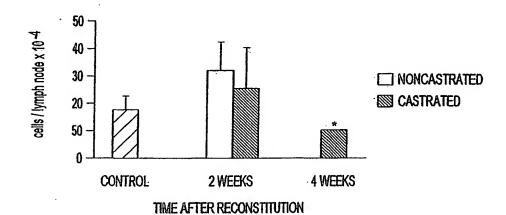
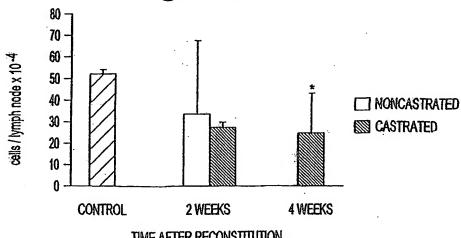


Figure 29B



TIME AFTER RECONSTITUTION

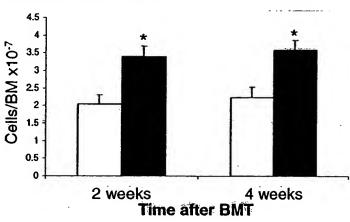
FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination

Development

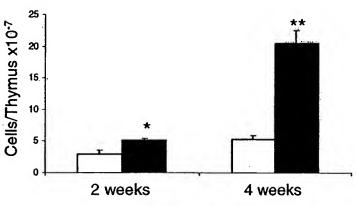
DOCKET NO.: NOR-011CP2/286336.150

33 OF 45





B. Thymus



Time after BMT

C. Spleen

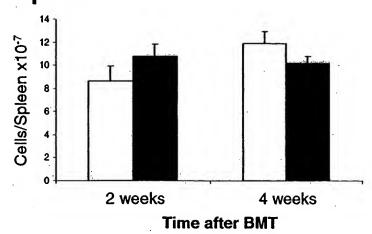


Figure 30

FILING DATE: December 30, 2003

TITLE: Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150 34 OF 45

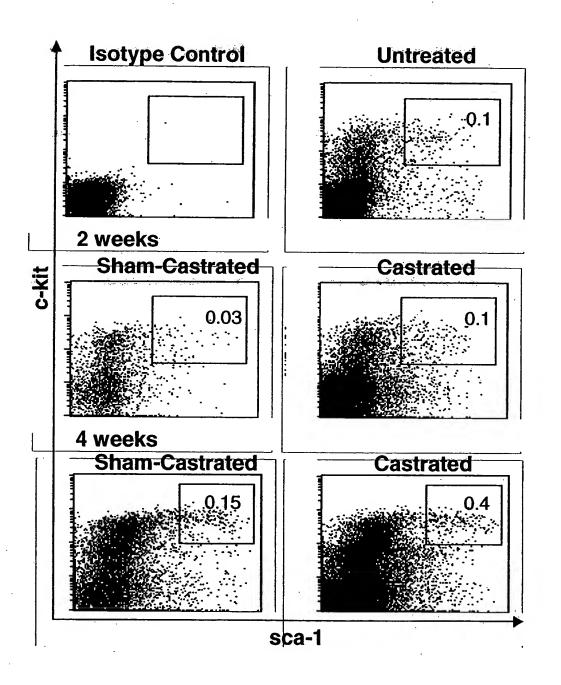


Figure 31

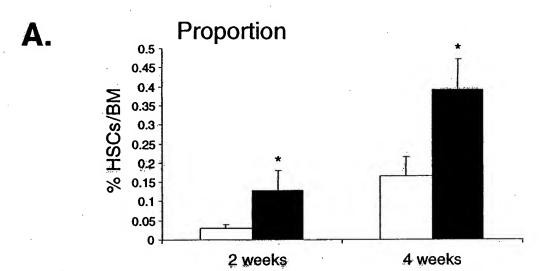
FILING DATE: December 30, 2003

TITLE: Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

35 OF 45



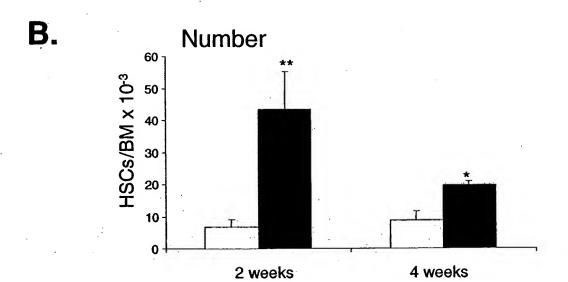


Figure 32

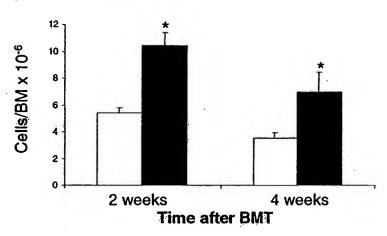
FILING DATE: December 30, 2003

TITLE: Stimulation of Thymus for Vaccination

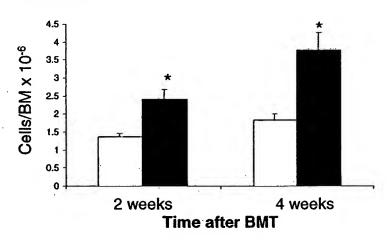
Development

DOCKET NO.: NOR-011CP2/286336.150 36 OF 45

B Cell Precursors



B. **B** Cells



FILING DATE: December 30, 2003

TITLE: Stimulation of Thymus for Vaccination

Development

DOCKET NO.: NOR-011CP2/286336.150

37 OF 45

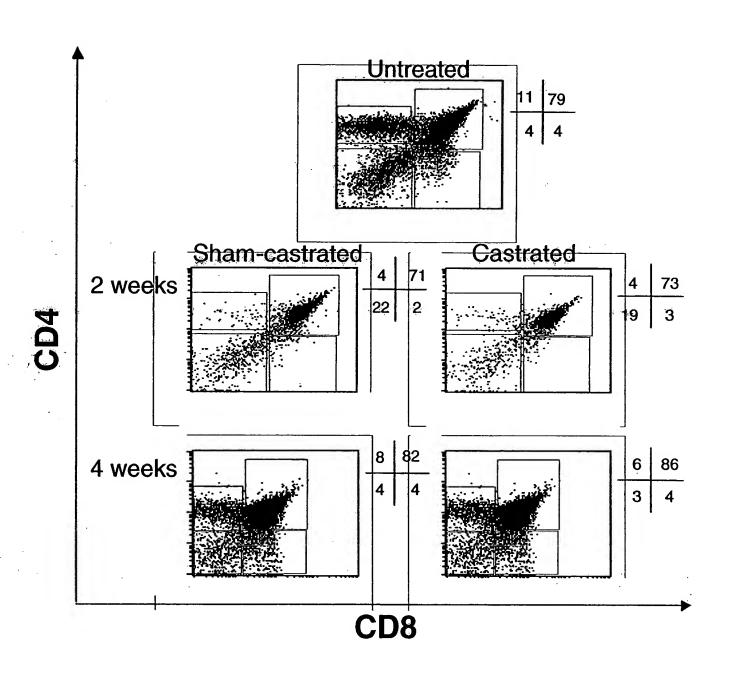
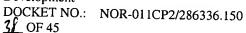


Figure 34

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination TITLE:

Development

31 OF 45



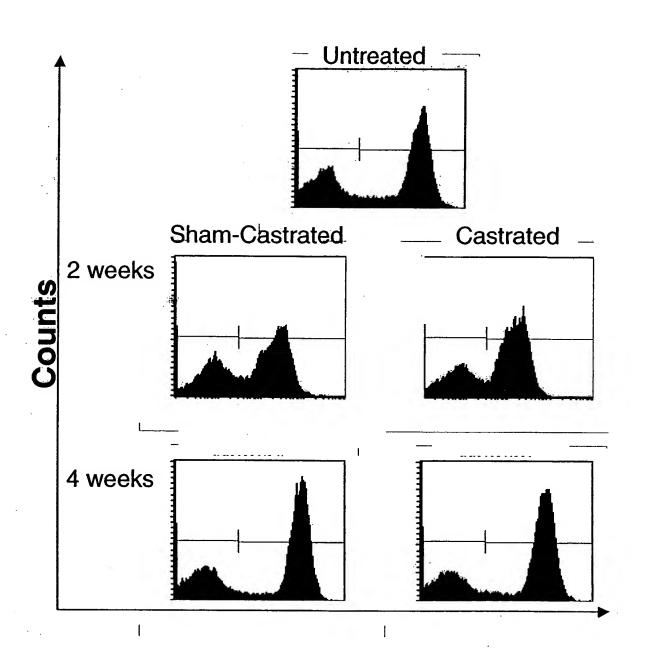


Figure 35

FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination Development
DOCKET NO.: NOR-011CP2/286336.150

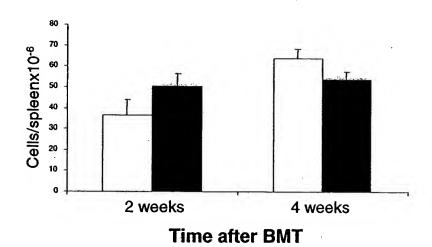
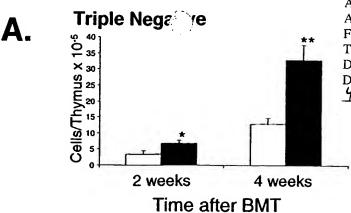


Figure 36



APPLICANT: Boyd TBD APPLN. NO.:

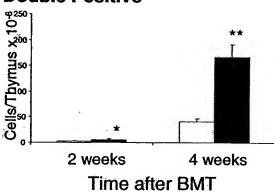
FILING DATE: December 30, 2003

Stimulation of Thymus for Vaccination

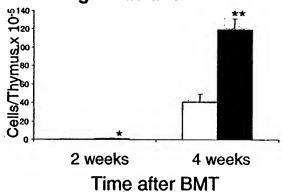
Development

DOCKET NO.: NOR-011CP2/286336.150 <u>40</u> OF 45

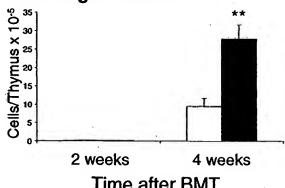
Double Positive B.



CD4 Single Positive



CD8 Single Positive



Time after BMT

Figure 37

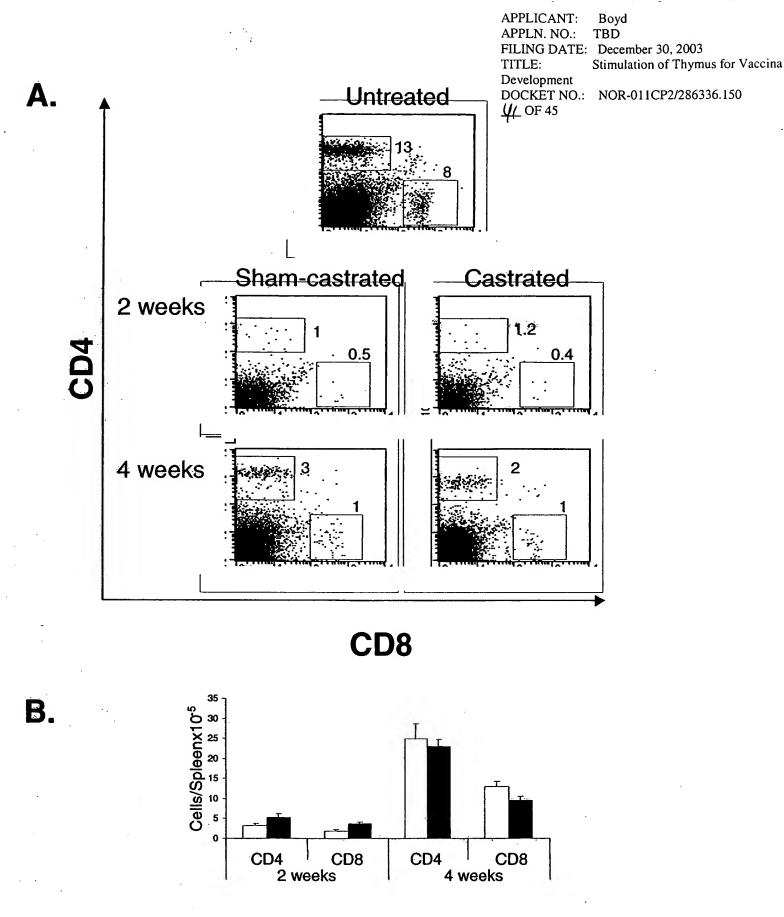


Figure 38

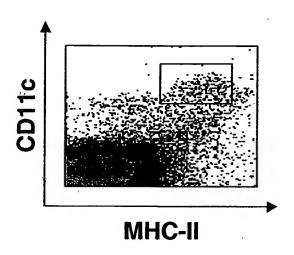
FILING DATE: December 30, 2003
TITLE: Stimulation of Thymus for Vaccination

TITLE:
Development

DOCKET NO.: NOR-011CP2/286336.150

<u>42</u> OF 45





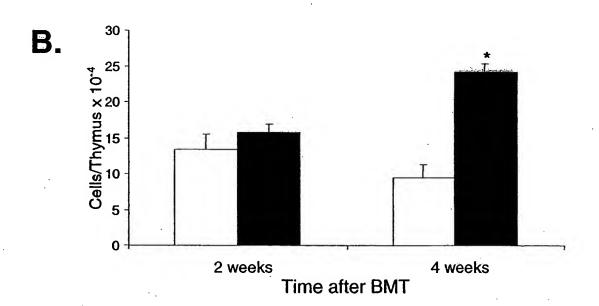


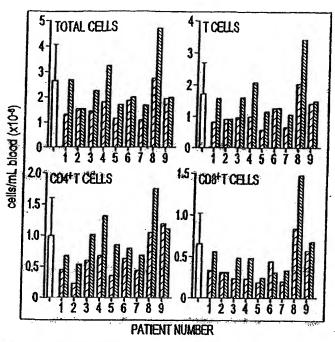
Figure 39

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

DOCKET NO.: NOR-011CP2/286336.150

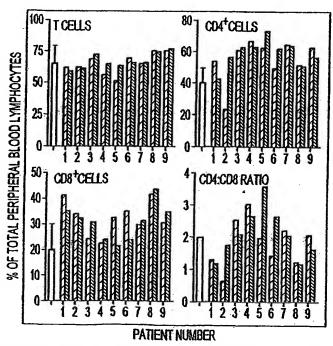
Development

√7 OF 45



☐ CONTROL ☑ PRE-LHRH-A TREATMENT ☑ 4 MONTHS OF LHRH-A TREATMENT

Figure 40



☐ CONTROL ☑ PRE-LHRH-A TREATMENT ☑ 4 MONTHS OF LHRH-A TREATMENT

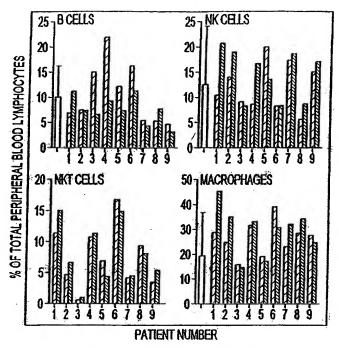
FILING DATE: December 30, 2003

Development

DOCKET NO.: NOR-011CP2/286336.150

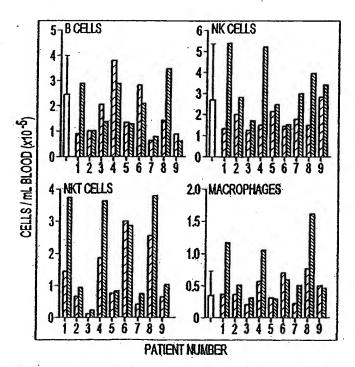
Stimulation of Thymus for Vaccination

W OF 45



☐ CONTROL ☐ PRE-LHRH-A TREATMENT ☐ 4 MONTHS OF LHRH-A TREATMENT

Figure 42



☐ CONTROL ☐ PRE-LHRH-A TREATMENT ☐ 4 MONTHS OF LHRH-A TREATMENT

Figure 43

Boyd APPLICANT: TBD APPLN. NO.:

FILING DATE: December 30, 2003 Stimulation of Thymus for Vaccination

TITLE:

DOCKET NO.: NOR-011CP2/286336.150 4 OF 45

Development

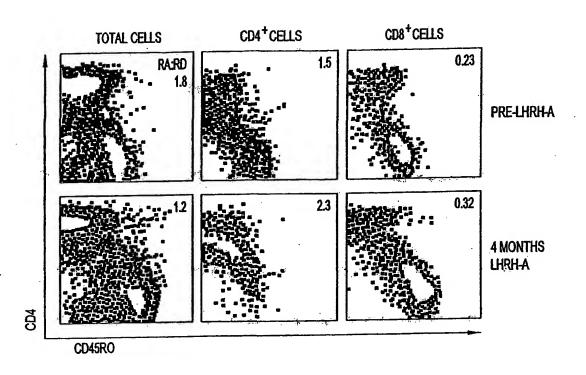
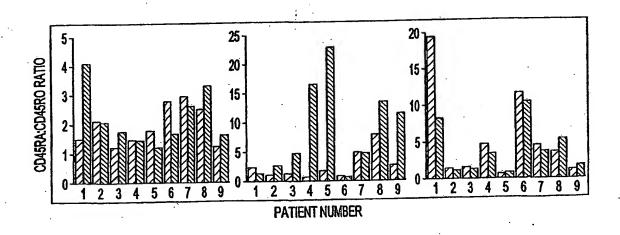


Figure 44A



PRE-TREATMENT

4 MONTHS OF TREATMENT